

*Draft Environmental Impact Statement for the*

# **Bangor Hydro-Electric Company Northeast Reliability Interconnect**

*August 2005*

*Volume 2: Appendices*



**U.S. Department of Energy**  
*Washington, DC*

*Cooperating Agencies*



**U.S. Department of the Interior**  
**U.S. Fish and Wildlife Service**



**U.S. Department of Commerce**  
**National Oceanic and Atmospheric Administration**



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**Permitting, Siting, and Analysis Division  
Office of Electricity Delivery and Energy Reliability  
U.S. Department of Energy  
Washington, DC 20585**

*Cooperating Agencies*



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U.S. Fish and Wildlife Service**



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National Oceanic and  
Atmospheric Administration**



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## NOTATION

The following is a list of the abbreviations, acronyms, chemical symbols, and units of measure used in this document. (Some acronyms and abbreviations used only in tables may be defined only in those tables.)

### GENERAL ACRONYMS AND ABBREVIATIONS

AC	alternating current
ACSR	aluminum conductor, steel reinforced
AMA	American Medical Association
ANL	Argonne National Laboratory
APLIC	Avian Power Line Interaction Committee
ARRL	American Radio Relay League, Inc.
ATC	American Transmission Company
ATV	all-terrain vehicle
BCD	Biological and Conservation Data System
BHE	Bangor Hydro-Electric Company
BLM	Bureau of Land Management
BP	before present
ca.	about
CAA	Clean Air Act
CCR	Consolidated Corridors Route
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CWA	Clean Water Act
DC	direct current
DEIS	draft environmental impact statement
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DPS	distinct population segment
EEZ	exclusive economic zone
EFH	essential fish habitat
EIA	environmental impact assessment
EIS	environmental impact statement
EMEC	Eastern Maine Electric Cooperative
EMF	electromagnetic field or electric and magnetic fields
EMI	electromagnetic interference
E.O.	Executive Order

EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FMP	Fishing Management Plan
FR	<i>Federal Register</i>
GIS	geographic information system
HAPC	habitat area(s) of particular concern
HMMH	Harris Miller Miller & Hanson, Inc.
ISO NE	Independent System Operator New England
LURC	Land Use Regulation Commission
M&N	Maritimes & Northeast Pipeline, L.L.C.
Maritimes	Maritimes & Northeast Pipeline, L.L.C.
MASC	Maine Atlantic Salmon Commission
MBEP	Maine Board of Environmental Protection
MBTA	Migratory Bird Treaty Act
MCCR	Modified Consolidated Corridors Route
MDEP	Maine Department of Environmental Protection
MDIFW	Maine Department of Inland Fisheries and Wildlife
MDOC	Maine Department of Conservation
MDOT	Maine Department of Transportation
MEPCO	Maine Electric Power Company
MHPC	Maine Historic Preservation Commission
MIG	Minnesota IMPLAN Group, Inc.
MNAP	Maine Natural Areas Program
MNHP	Maine Natural Heritage Program
MPCB	Maine Pesticide Control Board
PMUC	Maine Public Utilities Commission
MSA	Magnuson-Stevens Fish Conservation and Management Act
MSA	metropolitan statistical area
MSR	MEPCO South Route
NAAQS	National Ambient Air Quality Standards
NB Power	New Brunswick Power Corporation
NEB	National Energy Board of Canada
NEFMC	New England Fishery Management Council
NEPA	National Environmental Policy Act of 1969
NEPOOL	New England Power Pool
NESFA	North East State Forester Association

NESHAPs	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NIEHS	National Institute of Environmental Health Sciences
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	NOAA National Marine Fisheries Service
NOI	Notice of Intent
NPS	National Park Service
NRC	National Research Council
NRCS	Natural Resource Conservation Service
NRHP	<i>National Register of Historic Places</i>
NRI	Northeast Reliability Interconnect
NRPA	National Resources Protection Act
NSPS	New Source Performance Standards
NSR	New Source Review
NWI	National Wetlands Inventory
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
P.L.	Public Law
PM <sub>2.5</sub>	particulate matter with a mean aerodynamic diameter of 2.5 µm or less
PM <sub>10</sub>	particulate matter with a mean aerodynamic diameter of 10 µm or less
PP	Presidential permit
PPR	Previously Permitted Route
RF	radio frequency
RI	radio interference
ROD	Record of Decision
ROI	region of influence
ROW	right-of-way
SAV	submergent aquatic vegetation
SIP	State Implementation Plan
SHPO	State Historic Preservation Officer
TRC	TRC Environmental Corporation
TV	television
TVI	television interference
U.S.	United States
USACE	U.S. Army Corps of Engineers
USC	<i>United States Code</i>
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

VHF	very high frequency
VIA	visual impact assessment
VRM	Visual Resource Management
WHO	World Health Organization

## **CHEMICALS**

CO	carbon monoxide
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
O <sub>3</sub>	ozone
Pb	lead
SO <sub>2</sub>	sulfur dioxide

## UNITS OF MEASURE

ac-ft	acre-foot (feet)	lb	pound(s)
		L	liter(s)
°C	degree(s) Celsius	m	meter(s)
cm	centimeter(s)	m <sup>2</sup>	square meter(s)
dB	decibel(s)	m <sup>3</sup>	cubic meter(s)
dB(A)	A-weighted decibel(s)	mi	mile(s)
		mi <sup>2</sup>	square mile(s)
°F	degree(s) Fahrenheit	mG	milligauss
ft	foot (feet)	MHz	megahertz
ft <sup>2</sup>	square foot (feet)	min	minute(s)
ft <sup>3</sup>	cubic foot (feet)	mph	mile(s) per hour
gal	gallon(s)	MVA	megavolt-ampere(s)
		MW	megawatt(s)
		MWh	megawatt-hour(s)
ha	hectare(s)		
Hz	hertz	ppb	part(s) per billion
		ppm	part(s) per million
in.	inch(es)	s	second(s)
kg	kilogram(s)		
kHz	kilohertz	µg	microgram(s)
km	kilometer(s)	µm	micrometer(s)
km <sup>2</sup>	square kilometer(s)		
kph	kilometer(s) per hour	V	volt(s)
kV	kilovolt(s)		
kWh	kilowatt-hour(s)	yd	yard(s)
		yd <sup>3</sup>	cubic yard(s)

## ENGLISH/METRIC AND METRIC/ENGLISH EQUIVALENTS

The following table lists the appropriate equivalents for English and metric units.

Multiply	By	To Obtain
<b><i>English/Metric Equivalents</i></b>		
acres	0.4047	hectares (ha)
cubic feet ( $\text{ft}^3$ )	0.02832	cubic meters ( $\text{m}^3$ )
cubic yards ( $\text{yd}^3$ )	0.7646	cubic meters ( $\text{m}^3$ )
degrees Fahrenheit ( $^{\circ}\text{F}$ ) –32	0.5555	degrees Celsius ( $^{\circ}\text{C}$ )
Feet (ft)	0.3048	meters (m)
gallons (gal)	3.785	liters (L)
gallons (gal)	0.003785	cubic meters ( $\text{m}^3$ )
inches (in.)	2.540	centimeters (cm)
miles (mi)	1.609	kilometers (km)
miles per hour (mph)	1.609	kilometers per hour (kph)
pounds (lb)	0.4536	kilograms (kg)
short tons (tons)	907.2	kilograms (kg)
short tons (tons)	0.9072	metric tons (t)
square feet ( $\text{ft}^2$ )	0.09290	square meters ( $\text{m}^2$ )
square yards ( $\text{yd}^2$ )	0.8361	square meters ( $\text{m}^2$ )
square miles ( $\text{mi}^2$ )	2.590	square kilometers ( $\text{km}^2$ )
yards (yd)	0.9144	meters (m)
<b><i>Metric/English Equivalents</i></b>		
centimeters (cm)	0.3937	inches (in.)
cubic meters ( $\text{m}^3$ )	35.31	cubic feet ( $\text{ft}^3$ )
cubic meters ( $\text{m}^3$ )	1.308	cubic yards ( $\text{yd}^3$ )
cubic meters ( $\text{m}^3$ )	264.2	gallons (gal)
degrees Celsius ( $^{\circ}\text{C}$ ) +17.78	1.8	degrees Fahrenheit ( $^{\circ}\text{F}$ )
hectares (ha)	2.471	acres
kilograms (kg)	2.205	pounds (lb)
kilograms (kg)	0.001102	short tons (tons)
kilometers (km)	0.6214	miles (mi)
kilometers per hour (kph)	0.6214	miles per hour (mph)
liters (L)	0.2642	gallons (gal)
meters (m)	3.281	feet (ft)
meters (m)	1.094	yards (yd)
metric tons (t)	1.102	short tons (tons)
square kilometers ( $\text{km}^2$ )	0.3861	square miles ( $\text{mi}^2$ )
square meters ( $\text{m}^2$ )	10.76	square feet ( $\text{ft}^2$ )
square meters ( $\text{m}^2$ )	1.196	square yards ( $\text{yd}^2$ )